

even under the periosteum, and the medullary spaces are increased in size, with the formation of numerous greatly dilated bloodvessels. The rachitic process thus artificially produced is an inflammatory one, and is displayed in the ends of the diaphyses. In some of the animals experimented upon, the sciatic nerve of one side had been divided; but as this made no difference in the results as affecting the two limbs, it may be concluded that the drug acts through the blood and not by nervous influence. Since 1879 Kassowitz claims to have treated 560 rachitic children by the plan thus suggested, giving  $1\frac{1}{2}$  to  $\frac{1}{6}$  of a grain a day, with remarkable and uniform success. The value of this treatment of rachitis is supported by Soltmann, but is opposed by Schwechten, and by Weiss of Prague. The results of the experiments on which it is based, however, have a direct bearing upon the treatment of tubercular disease by phosphorus. If small doses of this remedy produce marked constriction of the bloodvessels, especially in young and rapidly growing tissue, it does not appear unreasonable to suppose a gradual starvation of tubercular nodules, with consequent shrinkage and desiccation. Cases of "cured tubercle" are recognized by the discovery of encysted caseous or cretaceous masses; and it is noticeable that those drugs which have been found useful in tubercular meningitis (although mostly given for other reasons), such as opium (Bristowe), codeia, (Harley), chloral, bromide of potassium, etc., possess the power of diminishing the calibre of the bloodvessels. Practice is the only bar at which appeals of this kind can be judged; as yet we are still in the region of theory and empiricism on this question. We would raise no hopes, we have no ambition to see an addition to the list of so-called "specific" remedies. But tubercular meningitis is a very fatal disease, for which at present we know of no hopeful treatment. If we agree with Trousseau that "imminent peril justifies the extremity of daring," we may not unreasonably receive without prejudice a plan of treatment which comes before us with at least some theoretical advantages.—*Medical Times and Gazette*, Oct. 4, 1884.

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#### *Bony Tumor of Brain.*

The formation of true bony growths in the substance of the brain is believed to be of rare occurrence. It is possible that the apparent rarity is due to the infrequency of post-mortem examinations of the cranial cavities of senile individuals. M. Witkowski has placed on record some of the particulars of an example of osseous tumor of the brain. The morbid growth was of the size of a walnut, and occurred in the left hemisphere at its occipital part; it was quite independent of the pia mater or ependyma, being surrounded on all sides by brain matter. Its shape was like that of two pyramids set together at their bases; its surface was studded with a number of spicules, points, and folds, the last of which had a certain resemblance to the convolutions of the brain. The tumor was encased in a fibrous capsule, and presented many excavations filled with brownish or yellowish soft material, which was discovered on microscopical examination to be of the same structure as the marrow of bone. The fibrous capsule or periosteum of the tumor was composed of a dense connective tissue, calcified in parts. After the tumor had been decalcified by treatment with chromic and nitric acids, a hyaline ground substance was brought into existence, and lamellae with bone corpuscles and Haversian canals were to be seen. The tumor was connected with the nervous substance by means of a delicate connective tissue strewed with amyloid corpuscles. There were no other osseous formations in any part of the central nervous system. The brain on the same side as the tumor was certainly more consistent than the right hemisphere, and the microscope exhibited an increase in the amount of connective tissue and stellate cells. The cerebral arteries were

extensively thickened, and many small foci of the brain were in a state of softening. Some degree of internal and external hydrocephalus was found, and the ependyma was thickened. The brain was that of a man, aged seventy-nine years, who had never shown any symptoms of brain mischief during life. No accident could be assigned as the cause of the formation, which does not appear to have been an ordinary psammoma.—*Lancet*, Oct. 11, 1884.

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*Varices of the Œsophagus.*

M. HANS BENDZ has recently called attention to varices of the œsophagus caused by circulatory troubles of the portal system, especially in cirrhosis of the liver. After a rapid introduction of his subject, he gives a detailed history of the case which called out his article.

The case in question was that of a man, æt 55 years, who, after about a year, showed evident symptoms of cirrhosis of the liver with a considerable degree of ascites, and died suddenly from profuse hæmatemesis. The stomach and small intestine contained a considerable quantity of blood at the autopsy; the mucous membrane was of normal condition, and was diffusely red, sometimes a clear red, sometimes deep. The liver was cirrhotic. The œsophagus showed in its inferior portion tortuous, dilated, varicose submucous veins. At the summit of a varix was encountered a longitudinal opening with thin and pale edges. The author emphasizes the fact that the opening was only discovered by the swelling of one of the trunks. There is no doubt but that all the blood which escaped from the mouth, and which was found in the intestinal canal, escaped from this opening. Bendz mentions a case observed by Odenius, but not yet published. In this case also there was cirrhosis of the liver, with considerable ascites. On the day on which the patient died a considerable quantity of bloody fluid escaped from the mouth, and at the autopsy a bloody liquid was found in the stomach and small intestine. The mucous membrane was neither infiltrated with blood nor tumefied, but was in a normal state. The veins of the lower portion of the œsophagus were distinctly dilated. Bendz shows that, as in his case, the hemorrhage came from the œsophageal veins, and believes that such an opening as he has described may be easily overlooked at the autopsy unless great care be exercised.

In the eighth case (nineteen were collected) observed by Bendz, the varices were similar to those in the first case, but there was no hemorrhage and the circulatory disturbance was not so marked. The author thinks that this disturbance was due to the fact that the patient's respiration had been of the abdominal type for several years, thus subjecting the liver to a pressure which interfered with the free passage of the blood through the portal vein. In five of the cases collected the circulatory disturbances were distinct and important, and the hemorrhages considerable and fatal.

From a consideration of these cases Bendz passes to a consideration of the relations and importance of varices of the œsophagus. Though they were recognized many years ago, it is only in the last ten years that any importance has been attached to them; which is explained by the fact that it is only within that time that the bearings of portal disturbance on the general circulation have been more fully recognized. Bendz draws a marked distinction between true varices of the œsophagus, varices pertaining almost exclusively to the lower portion of the œsophagus, and the phlebectasiæ often encountered in persons of advanced age, which are found all along the canal, though principally in the upper portion. With the latter he does not concern himself in this paper. The origin of the first is clear; they are formed just as other vascular dilatations